

ABSTRACT OF THE DISCLOSURE

Disclosed is a distortion compensating amplifier having a distortion compensator for compensating for distortion of an amplifier by updating distortion compensation coefficients so as to null a difference between a transmit signal and a feedback signal, and subjecting the transmit signal to distortion compensation processing using the distortion compensation coefficients, an amplifier for amplifying the transmit signal, which has undergone distortion compensation, in order to transmit the signal from an antenna, and a feedback unit for inputting an output signal from the amplifier to a distortion compensation coefficient updater in the distortion compensator as the feedback signal. Whether the level of an unwanted-wave signal that penetrates the amplifier from space via an antenna is greater than a set level is monitored. If the level of the unwanted-wave signal is above the set level, processing for updating distortion compensation coefficients is suspended. If the level of the unwanted-wave signal is below the set level, then processing for updating distortion compensation coefficients is resumed.

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